

REMARKS

In an Office Action dated March 21, 2002, claims 1-5, all of the claims in the subject patent application, were rejected. Reconsideration of the subject patent application and allowance of all of the claims is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 4 and 5 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. While Applicant respectfully disagrees that these claims are indefinite, claims 4 and 5 have been amended to further clarify that coating layers and paper layers, respectively, are formed on both sides of the base. In view thereof, withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 1, 2 and 4 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Berger et al. (U.S. Patent No. 6,165,592) (hereinafter "Berger"). This rejection, as it may apply to the claims, as amended, is respectfully traversed.

Applicable case law holds that in order for prior art to render a claim obvious, all claim limitations must be taught or suggested by the prior art. See, e.g., In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974).

Berger discloses a value document comprising a carrier 1 carrying thereon a reflective metal layer (e.g., a hologram) 5 via an adhesive layer 7, which is covered by a transparent layer 6. See Figure 2. Even assuming, arguendo, that the adhesive layer 7 contains a fluorescent substance or ink, as asserted by the Patent Office, Berger does not teach or suggest each and every claim limitation of the present invention.

Among other things, Berger fails to teach or suggest Applicant's claimed "outer layers formed on both sides of said base," as recited in independent claim 1. Independent claim 4 has a similar limitation. As illustrated in Figure 2 of Berger, a layer composite 4 including the metal layer 5, transparent layer 6, and adhesive layer 7 is formed on one side of the carrier 1. However, there is no layer formed on the opposing side of the carrier 1. The forgery prevention sheet as defined in claim 1, in contrast to Berger, has a layered construction including a base 2 and outer layers 1, 3. The outer layer 1 is formed on one side of the base 2, and the outer layer 3 is formed on the other side of the base 2.

In addition, Berger does not disclose the limitation "at least one of said outer layers being printed with a fluorescent pigment ink," as recited in independent claim 1. Independent claim 4 has a similar limitation. In the Office Action, it is stated that "Berger does not show that the security attribute (fluorescent pigment ink) is duplicated on the other side of the paper carrier as in instant claims 1 and 4," and "it is obvious to provide the security attribute on both sides of the carrier." Independent claim 1 (and claim 4), however, does not require a security attribute on both sides of the base. Rather, the outer layers are formed on both sides of the base, and "at least one" of the outer layers is printed with a fluorescent pigment ink. In other words, the outer layers are formed on the base, but both outer layers do not necessarily contain a fluorescent pigment ink. Even assuming, arguendo, that the adhesive layer 7 of Berger contains a fluorescent ink (as suggested by the Patent Office), there is no teaching or suggestion that the adhesive layer is a "[print layer] with fluorescent pigment ink."

Correspondingly, Berger fails to teach or suggest the limitation "both of said outer layers having opacity of 20-92%," as recited in independent claim 1. Independent claim 4 has a similar limitation. Since Berger does not disclose two outer layers, Berger cannot teach this limitation. Even assuming, arguendo, that Berger discloses two outer layers, there is no disclosure of outer layers having opacity of 20-92%.

It is stated in the Office Action that, generally, a metal layer is substantially opaque and the opacity requirement is a property which can be easily determined by one of ordinary skill in the art. Clearly, the metal layer 5 of Berger is substantially opaque since luminescent substances are disposed in the transparent layer 13' (e.g., in regions 16'). Column 6, lines 40-42. However, outer layers having an opacity of 20-92% cannot be "easily determined". To be sure, the luminescent substances contained in the region 16' can be viewed from the top (i.e., from the side of the carrier film 9) when irradiated with ultraviolet rays from the top, but cannot be viewed from the bottom (i.e., from the side of the adhesive layer 12') when irradiated with ultraviolet rays from the bottom due to the presence of the opaque metal structure 14. In other words, since the document contains the opaque metal layer(s) 5, 14, a print pattern (e.g., where the fluorescent ink is dispersed) cannot be viewed from both sides of the sheet when irradiated with ultraviolet rays. Indeed, Berger does not disclose the opacity requirement of 20-92%.

The Patent Office asserts that "it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation." Applicant submits that it is not "obvious to modify the condition of a composition" in Berger. It

should be noted that the burden is on the Patent Office to cite a reference to support its position that something is "well known". In other words, the burden is not on the Applicant to prove that something is not "well known". See MPEP § 2144.03. As of yet, the Examiner has only cited to Berger. However, the opacity requirement is not disclosed or found in Berger. Consequently, Applicant cannot see how Berger can support the proposition that it is "obvious to modify the conditions of a composition."

Additionally, Berger also fails to teach or suggest the "print layer" of independent claim 4. Independent claim 1 has a similar limitation. Claim 4 recites "a print layer formed by printing with a fluorescent pigment ink . . ." The print layer of Berger is located on the surface of the carrier. Conversely, the print layer as defined in claim 4 is buried within the forgery prevention sheet. Thus, the prevention sheet of claim 4 appears to be a typical coated or non-coated paper under sunlight. However, the print pattern can be viewed from both sides of the prevention sheet when irradiated with ultraviolet rays.

In view of the foregoing, claims 1 and 4 cannot be rendered obvious over the Berger reference, and the rejection of claims 1 and 4 should be withdrawn.

Dependent claim 2 depends from independent claim 1 and is submitted to be distinguishable over Berger for at least the same reasons set forth above with respect to claim 1, as well as for the additional features it recites. For example, Berger completely fails to teach or suggest that both of the outer layers have opacity of 40-92%.

Claims 3 and 5 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Berger in view of Katagiri (U.S. Patent

No. 6,074,739). This rejection, as it may apply to the claims, as amended, is respectfully traversed.

Independent claims 3 and 5 contain similar limitations as independent claims 1 and 4, and therefore, the above arguments regarding the Berger reference are applicable.

Katagiri fails to remedy the deficiencies of Berger. Katagiri merely discloses a substrate 1 on which a phosphorescence layer 2 and coloration layer 3 are provided thereon. There is no disclosure of the claimed opacity requirement in Katagiri, notwithstanding the metal substrate.

Further, there is no motivation or reasoning for combining the Berger and Katagiri references. In particular, the combined disclosures of Berger and Katagiri do not render the pending claims obvious because there is no motivation, absent the hindsight reconstruction of the present invention, to modify the disclosure of Berger in accordance with the disclosure of Katagiri.

"When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references." In re Rouffet, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998); see also MPEP § 2143.01. Virtually all inventions are combinations of old elements. See In re Rouffet, 47 USPQ2d at 1457. If identification of each claimed element in the prior art were sufficient to negate patentability, the Patent Office could use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. See id. To prevent the use of hindsight based on the teachings of the patent application, the Patent Office must show a motivation to combine the references in the manner suggested. See id. at 1457-58.

In Rouffet, the Court of Appeals held that although all elements recited in the claims of Rouffet's application were disclosed in the applied prior art references, the rejection under 35 U.S.C. § 103 was improper because there was no suggestion as to why one skilled in the art would have been motivated to combine the references in such a manner as to render the claims obvious. See id. at 1457.

The situation is, at best, the same in this case. Even if all elements recited in the pending claims can be found in the combined disclosures of Berger and Katagiri, there is no reason that one of ordinary skill in the art would have been motivated to combine these references in such a manner as to render the pending claims obvious. It is suggested in the Office Action that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to use an opaque layer of metal or paper having the opacities of the instant invention since they are known to be functional equivalents." That stated motivation, however, is no more than a hindsight reliance on the teachings in the present application of the advantages of the present invention. Further, the Patent Office provides no evidence to establish that the metal layer of Berger and the paper layer of Katagiri are "functional equivalents."

Based on the foregoing comments, claims 3 and 5 cannot be rendered obvious over either the individual or the combination of the Berger and Katagiri references, and the rejection of claims 3 and 5 should be withdrawn.

Applicant submits that the present application is now in condition for allowance. Reconsideration and favorable action are earnestly requested.

Respectfully submitted,

By 

Monica S. Davis
Attorney for Applicants
Registration No. 44,492
ROTHWELL, FIGG, ERNST & MANBECK, p.c.
Suite 800, 1425 K Street, N.W.
Washington, D.C. 20005
Telephone: (202) 783-6040

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Attached: Marked-up copy of claims 4 and 5

Mark-up of Claims:

1 4. (Amended) A forgery prevention sheet comprising a base, a print layer formed by printing with a fluorescent pigment ink on at least one side of said base, [a first coating layer formed on a non-printed side of said base, and a second coating layer formed on said print layer, both of said first and second coating layers] and coating layers formed on both sides of said base, both of said coating layers having opacity of 20-92%.

2 5. (Amended) A forgery prevention sheet comprising a base, a print layer formed by printing with a fluorescent pigment ink on at least one side of said base, [a first paper layer formed on a non-printed side of said base, and a second paper layer formed on said print layer, both of said first and second paper layers] and paper layers formed on both sides of said base, both of said paper layers having opacity of 20-92%.